

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/686,078

REMARKS

Upon entry of this Amendment, claims 1-13 are all the claims pending in the application.
Claim 13 has been added. Claims 1-12 presently stand rejected.

Information Disclosure Statements

The Examiner returned the initialed PTO/SB/08 filed with the Information Disclosure Statement on December 4, 2002. However, Applicants have not received an initialed PTO/SB/08 for the Information Disclosure Statement filed with the application on October 12, 2002. The Examiner is respectfully requested to return the initialed PTO/SB/08 indicating that the cited references have been considered.

Claim Objections

Claims 5 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Claim Rejections

Claims 1, 4, 5, 6 and 8 are rejected under 35 U.S.C. § 112, second paragraph.

Claims 1-4, 6, 7 and 9-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cecchi et al. (USP 6,532,081).

For the reasons set forth below, Applicant respectfully traverses the rejections and requests favorable disposition of the application.

Argument

In regard to the rejection of claim 1 under 35 U.S.C. § 112, second paragraph, Applicant has amended the claim. Applicant submits that claim 4 satisfies all requirements of 35 U.S.C. § 112 and, thus the rejection should be withdrawn.

In regard to the rejection of claim 4 under 35 U.S.C. § 112, second paragraph, Applicant has amended the claim. Further, Applicant submits that “the pixel data” finds sufficient antecedent bases in independent claim 2. Applicant submits that claim 4 satisfies all requirements of 35 U.S.C. § 112 and, thus the rejection should be withdrawn.

In regard to the rejection of claim 5 under 35 U.S.C. § 112, second paragraph, Applicant has amended the claim. Applicant submits that claim 5 satisfies all requirements of 35 U.S.C. § 112 and, thus the rejection should be withdrawn.

In regard to the rejection of claim 6 under 35 U.S.C. § 112, second paragraph, Applicant has amended the claim. Applicant submits that claim 6 satisfies all requirements of 35 U.S.C. § 112 and, thus the rejection should be withdrawn.

In regard to the rejection of claim 8 under 35 U.S.C. § 112, second paragraph, Applicant has amended the claim. Further, Applicant submits that “the determined table” finds sufficient antecedent bases in claim 8 where it is recited, “said area unit conversion means determines said first table and said second table”. Applicant submits that claim 8 satisfies all requirements of 35 U.S.C. § 112 and, thus the rejection should be withdrawn.

In regard to the rejection of claims 1-4, 6-7 and 9-12 under 35 U.S.C. § 103 as being unpatentable over Cecchi et al., Applicant submits that Cecchi et al. fails to teach or suggest at least the recited elements specified below.

In regard to independent claim 1, Applicant submits that Cecchi et al. fails to teach or suggest the second conversion means as claimed. In particular, the Examiner asserts that the second conversion means is taught by the processor 38 in Cecchi et al. and that, although Cecchi et al. fails to disclose that the processor 38 comprises the claimed area unit conversion means or pixel unit conversion means, Cecchi's processor 38 performs identical functions to those of the area unit conversion means or pixel unit conversion means. Applicant respectfully disagrees.

For example, claim 1 explicitly recites,

area unit conversion means for converting first image data within one or more of the plurality of areas into corresponding second image data, while referring to one or more of said tables that respectively correspond to a type of drawing object contained in said one or more of the areas

and

pixel unit conversion means for converting individual pixel data corresponding to one or more pixels within one or more of the plurality of areas into corresponding second image data, while referring to one or more of said tables that respectively correspond to a type of drawing object indicated by the individual pixel data

and

conversion switching means for applying said pixel unit conversion means to areas wherein at least two of said plurality of tables correspond to respective types of drawing objects contained therein, and for applying said area unit conversion means to areas wherein one of said tables corresponds to a type of drawing object contained therein or to areas containing no drawing object.

In other words, as disclosed, for example, at page 16, line 5 through page 18, line 26, an embodiment of the claimed invention includes two separate and distinct means for converting first image data. One means, i.e., the area unit conversion means, converts data based on an area of the image data and refers to a respective table that corresponds to the type of drawing object contained in that area. A second means, i.e., the pixel unit conversion means, converts data based on individual pixels within areas of the first image data and refers to a respective table that

corresponds to the type of drawing object to which that pixel belongs. Furthermore, a conversion switching means is recited which selects the pixel unit conversion means when two or more tables correspond to the types of drawing objects within a particular area, for example, when both image (photograph) data and draw (graph, text) data exist within the same area, and selects the area unit conversion means when only one type of data exists within a particular area or when no data exists within the area.

Cecchi et al., in comparison, discloses a device in which a blended look-up table (LUT) is used to “refine the weighting values” (col. 6, line 17) to remove “undesirable artifacts and contours, when mixed image signals [have] both pictorial and graphical characteristics.” (col. 4, lines 54-56). The Examiner asserts that Cecchi et al. discloses a particular means that converts first image data using a graphical LUT when the data is determined to be draw data and converts first image data using a pictorial LUT when the data is determined to be image (pictorial) data. The Examiner further contends that this same means “converts each of pixel data containing both the draw object and image data” by combining the graphical LUT and pictorial LUT to achieve blended LUT 39, and that this is equivalent to the claimed pixel unit conversion means.

The Examiner is incorrect in her interpretation of Cecchi et al., however, for at least one important reason. That is, Cecchi et al. does not disclose selecting between data converted based on the type of data within an area of the image and data converted based on the type of data corresponding to an individual pixel. Specifically, at column 6, lines 15-55, and FIG. 4, Cecchi et al. clearly discloses that a particular LUT, e.g., pictorial, graphic or blended, is selected based on where the input image data value falls in regard to the respective gamuts of the CRT and the

printer color ranges. Further, if a blended LUT is selected, different weightings are chosen, i.e., W1, W2 or W3, also based on where the input image data value falls in regard to the respective gamuts of the CRT and the printer color ranges. Accordingly, the method by which different LUTs are selected in Cecchi et al. has nothing to do with selecting converted data from either an area unit conversion means or a pixel unit conversion means based on whether or not two or more types of data exist within a specified area of image data.

For at least the above reason, Applicant respectfully submits that Cecchi et al. does not teach or even suggest the subject matter recited in claim 1 and, thus, the rejection of claim 1 should be withdrawn.

In regard to the rejection of claim 2, Applicant submits that for similar reasons to those set forth above in regard to independent claim 1, Cecchi et al. fails to teach or suggest the recited area unit conversion means, pixel unit conversion means and conversion switching means. For at least this reason, Applicant submits that claims 2-9 are patentable over Cecchi et al. and, thus, the prior art rejection against these claims should be withdrawn.

In regard to claims 10 and 11, Applicant submits that for similar reasons to those set forth above in regard to independent claims 1 and 2, Cecchi et al. fails to teach or suggest the recited area unit converting means, pixel unit converting means and conversion switching means. For at least this reason, Applicant submits that claims 10 and 11 are patentable over Cecchi et al. and, thus, the prior art rejection against these claims should be withdrawn.

Lastly, in regard to method claim 12, Applicant submits that for similar reasons to those set forth above in regard to independent claims 1, 2, 10 and 11, Cecchi et al. fails to teach or

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suggest the recited area unit converting step, pixel unit converting step and conversion switching step. For at least this reason, Applicant submits that claim 12 is patentable over Cecchi et al. and, thus, the prior art rejection against claim 12 should be withdrawn.

Patentability of New Claims

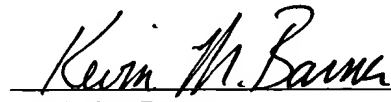
For additional claim coverage merited by the scope of the invention, Applicant has added new claim 13. Applicant submits that the prior art does not disclose, teach, or otherwise suggest the combination of features contained therein.

Conclusion

In view of the foregoing remarks, the application is believed to be in form for immediate allowance with claims 1-13, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to **contact the undersigned** at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Kevin M. Barner
Registration No. 46,075

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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